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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/873,021	06/01/2001	Tuan Nguyen	2000 P 07660 US 01	3236

7590 10/05/2004

Siemens Corporation  
Intellectual Property Department  
186 Wood Avenue South  
Iselin, NJ 08830

EXAMINER

FREJD, RUSSELL WARREN

ART UNIT	PAPER NUMBER
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2128

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/873,021	<b>Applicant(s)</b> NGUYEN ET AL.	
	<b>Examiner</b> Russell Frejd	<b>Art Unit</b> 2128	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 May 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 10, 11, 14, 18 and 21-23 is/are rejected.
- 7) ☒ Claim(s) 5, 7-9, 12, 13, 15-17, 19, 20 and 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>05.13.02</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

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***Examination of Application #09/873,021***

1. Claims 1-24 of application 09/09/873,021, filed on 1-June-2001, are presented for examination.

***Claim Objections under 37 CFR 1.75(d)(1)***

2. Claim 21 is objected to under 37 CFR 1.75(d)(1), wherein the phrase (on line 3) *components using customer* is understood by the Examiner to be *components using a customer*.

***Notice - 35 U.S.C. § 112, Sixth Paragraph***

3. The following is a quotation of the appropriate paragraph of 35 U.S.C. 112 that forms the basis for the notice under this section made in this Office Action:

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

- 3.1 The language of claims 14-16, 18 and 19 indicates Applicants may desire an interpretation of these claims under 35 U.S.C. § 112, Sixth Paragraph. In order to receive a claim interpretation under

35 U.S.C. § 112, Sixth Paragraph, Applicants must:

1. show why the claim language properly invokes 35 U.S.C. § 112, Sixth Paragraph;
2. identify the function;
3. identify the corresponding structure; and

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4. amend the Specification, if necessary, to explicitly state what structure corresponds to the recited function with reference to the claimed terms and phrases, provided no new matter is introduced.

See 37 C.F.R. 1.75(d) and MPEP § 2181.

**3.2** For the purpose of further examination, each claim listed above will be interpreted as broadly as reasonably possible without regard to 35 U.S.C. § 112, Sixth Paragraph.

### ***Claim Rejections under 35 U.S.C. § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4, 6, 10, 11, 14, 18, and 21-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Atherton, U.S. Patent no. 4,796,194.

**5.1** Atherton disclosed the invention as claimed, including a method for more tractable management and control of distributed factories having fabrication sequences, comprising:

[claims 1, 14 and 21] modeling and controlling a manufacturing plant, wherein a modeling process includes delineating a set of factory operating rules which define how part lots interact with machines in actual operation of the plant, wherein the manufacturing plant is defined by specifying machines in the plant and at least batch size and processing time parameters of each machine [col. 4, line 61 through col. 5, line 1](applicant's modeling an

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electronic components assembly system, and representing equipment having specific operating parameters in a proposed line configuration);

providing fabrication sequences for the products manufactured in the plant, wherein the process steps are assigned to the machines, including defining at least time and yield characteristics for each of the process steps [col. 5, lines 2-6] (applicant's associating values of the specific operating parameters for each piece of equipment in the proposed line);

obtaining and using a model by this process to simulate operation of the manufacturing plant [col. 5, lines 11-12] (applicant's building and running the simulation); and

obtaining predictions with the simulations and comparing the information with observed manufacturing trends in the plant [col. 5, lines 12-14] (applicant's generating a report for the simulation).

[claims 2, 3, 4 and 11] A set of fundamental rules for the definitions of fabrication sequence, queues, scheduling rules, batching, set-up times, yield, reliability, and other variables in developing the specimen models, wherein a choice of rules from each set defines an individual model [col. 5, lines 34-41] (applicant's building the simulation from templates with values for specific operating parameters, customizing the report, and selecting components that have been at least partially modeling in advance as the basis for the simulation).

[claim 6 and 22] A model describing the actual operation of the factory (applicant's step a);

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an individual model from the class defined by the fundamental rules is chosen, the choice based upon the match between the dynamic characteristics of the model and those of the factory (applicant's steps b and c);

simulating the dynamic behavior of the factory (applicant's step d);

validating the model (applicant's performance measurement satisfying a criterion); and

comparing the predictions of the simulation against manufacturing trends in the plant, the comparisons being used to refine the choice of fundamental rules and parameters in the model (applicant's modifying the configuration if the criterion is not met) [all of the above found in col. 5, line 10-56].

[claims 10 and 23] Validating the model by use of material movement data [col. 5, line 56] (applicant's material flow abstraction).

[claim 18] A discrete event algorithm for computing the model [col. 13, lines 16-38] (applicant's discrete event simulation software).

### ***Claim Objections***

6. The remaining claims 5, 7-9, 12, 13, 15-17, 19, 20 and 24 are objected to for incorporating the rejection of their respective base claims by dependency.

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***Response Guidelines***

7. A shortened statutory period for response to this action is set to expire **3 (three) months and 0 (zero) days** from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned (see MPEP 710.02, 710.02(b)).

8. **Any response to the Examiner in regard to this non-final action should be**

**directed to:** Russell Frejd, telephone number (703) 305-4839, Monday-Friday from 0530 to 1400 ET, **or** the examiner's supervisor, Jean Homere, telephone number (703) 308-6647. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist, telephone number (703) 305-3900.

**mailed to:** Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:** (703) 872-9306

*Hand-delivered responses should be brought to 220 South 20<sup>th</sup> Street, Crystal Plaza Two, Lobby, Room 1B03, Arlington, VA., 22202.*

**Date:** 30-September-2004

  
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**RUSSELL FREJD  
PRIMARY EXAMINER**